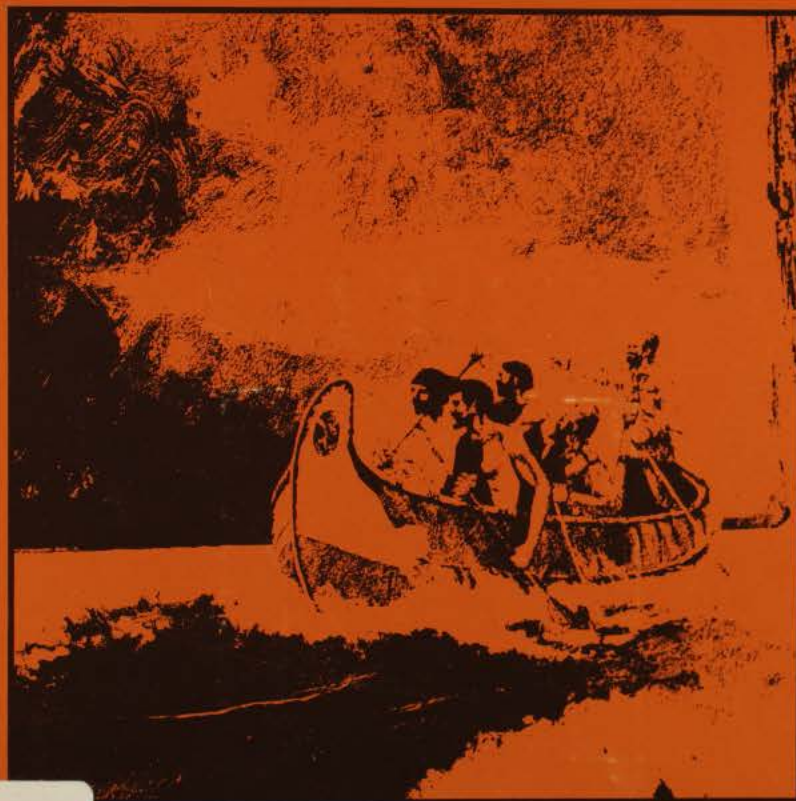


PIONEERS of Athabasca the Oil Sands



Book I

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New publications are never the result of a single individual effort. These publications are no exception. Many people have contributed something of themselves, their time and talents in the production of the two books in this series.

The authors are grateful to the Educational Services staff of Syncrude Canada Ltd. for the commendable job they have done in shaping our rough materials into an acceptable finished product.

A special note of thanks is tendered Tudor Williams, Co-ordinator, Educational Services, for his leadership, his gentle persuasion, and his patient nudging us forward to the final goal, to keep the writing on the track. His astute observations and keen wit not only provided the leaven to keep us on the task, but added to its enjoyment.

The authors stand alone in accepting full responsibility for any shortcomings within the context of these materials.

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Preface

In recent years the content of many social studies programs has changed to include a focus on current problems which have beset man and his relationship to his environment. This change in curricular emphasis has generated a need for current materials which focus on particular social, political, or economic problems under study in the classroom.

While much material is generated from individuals, corporations, and governments involved in resource development, a great deal of it is not readily adaptable to classroom use. It is in response to this need that the materials contained in the books of this series have been prepared on the Canadian oil sands.

Book I focuses on the history and geography of the Fort McMurray - Lake Athabasca region. Book II, through a series of six episodes, concentrates on the identification and contributions of the first scientists and entrepreneurs interested in extracting oil from the oil sands; it also raises some fundamental questions of ownership, and what is the most efficient combination of men, technology and capital needed to develop the oil sands.

The content in each book need not be considered in sequence. The organization of the material has been designed to permit maximum flexibility of use. The Study Questions are meant to open up new perspectives, and will require additional supplementary material.

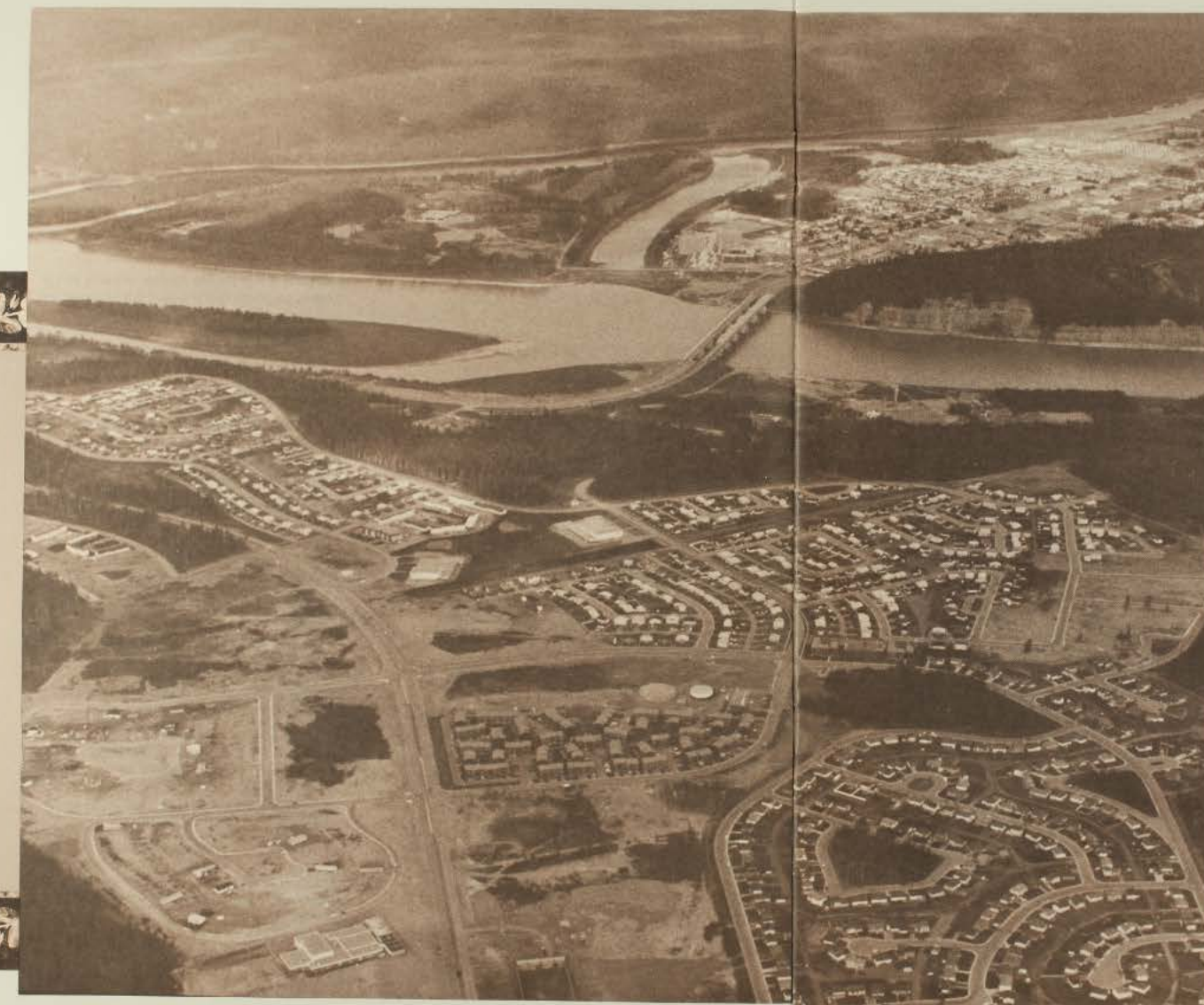
If used with an understanding of their intent and structure, the resource books should enable the teacher to initiate a stimulating study of resource development in the Athabasca Oil Sands.

PIONEERS of Athabasca the Oil Sands

Introduction

The Athabasca Oil Sands in northern Alberta is the largest of Canada's heavy oil deposits. Sometimes called bituminous sands because of their pitch black appearance, the deposits consist of sand saturated with dense, viscous petroleum. Although the average depth of the oil sands in the Athabasca deposit is 600 m, shallow layers are found along the banks of the Athabasca River and its tributaries. These layers of oil sands are about 60 m thick. The black sticky substance oozing from the face of the river banks has long been an intriguing sight to travellers in the area, from the earliest explorers to modern-day scientists seeking ways to tap this vast resource.

Fort McMurray



Although oil sands are found in many parts of the world (Figure 1), the Athabasca Oil Sands are considered the most significant because of their extent and the thickness and quality of the deposit. There are varying estimates of the amount of crude oil they contain but it's generally agreed the total is at least 700 billion barrels.

In all, the Athabasca Oil Sands encompass 29 260 km². But less than one tenth of this area (7.3 per cent) can be worked by surface mining — the only method currently being used for commercial production. Surface mining techniques (which are practical where the

oil-bearing sands are not more than 60 m below the surface) are expected to produce about 26.5 billion barrels of synthetic crude oil. Underground mining may be used in 11.4 per cent of the area to reach sands buried at a depth of 60 m to 150 m. Another 33 per cent of the area can be developed using in situ (in place) recovery methods to produce an estimated 250 billion barrels of synthetic crude oil.

LOCATION

The Athabasca Oil Sands sprawl across an area of northeastern Alberta roughly the size of

Denmark. They underlie a region characterized by vast tracks of forest, patches of marsh and muskeg and a myriad of lakes, rivers and streams. Centering around the junction of the Athabasca and Clearwater Rivers, the oil sands lie in townships 84 to 104 between ranges 4 and 18 west of the fourth meridian between the 56th and 57th parallels. The Athabasca-Clearwater system with its adjacent marshlands provides the main drainage for northeastern Alberta. Among the largest lakes in the system are Athabasca, Claire, Utikuma and Bistcho. The two prominent highlands in the area are the Caribou and Birch Mountains.

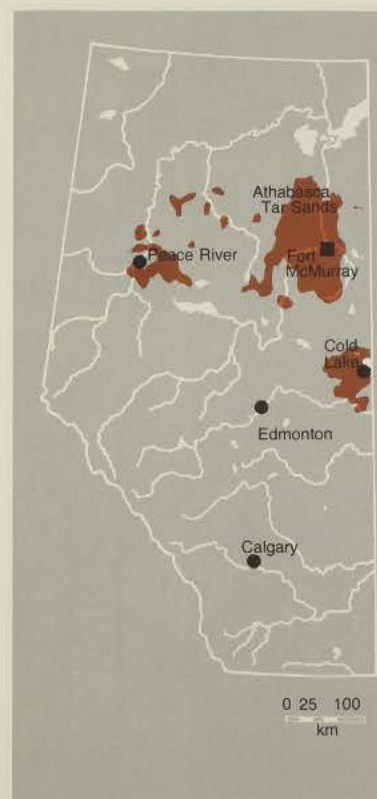
COMMERCIAL CENTRE

The Town of Fort McMurray is the main commercial centre of the oil sands area. It is a well-established urban centre which many feel is destined to become one of Alberta's largest cities. Fort McMurray today retains few reminders of its beginnings as an isolated fur trading post — or of the periods of prosperity and depression it has weathered in the century since it was first established.

Fort McMurray is located where the Athabasca and Clearwater Rivers meet. It is



Figure 1 Oil Sands of the World



Alberta



(Aerial view showing the confluence of the two rivers and the town of Fort McMurray.)

440 km north of Edmonton, about 65 km from the Saskatchewan border and 400 km east of Peace River. The town's business section occupies the valley floor with much of the residential area located on the wooded plateau above. Natural subdivisions have been created by the fact that the Athabasca and Clearwater, with their tributaries, the Horse and Hangingstone, have, through centuries of erosion, etched gorge-like valleys into the plateau that extends up to 90 m in elevation. The forested vegetation of the plateau contrasts sharply with the hinterland scrub, swamp and muskeg. Surrounding the townsite are the Stoney, Muskeg and Thickwood Hills.

GEOLOGY

The Origin of the Oil Sands

Scientists are not agreed on the exact origin of the oil sands. One theory is that the oil was formed locally and has never moved. Since the oil sands are buried under a relatively thin layer of overburden, thermal cracking has not occurred, indicating that the oil sands are geologically young.

Another theory assumes the oil originated elsewhere. Starting out much like conventional crude, it is thought to have flowed into the sand

deposits which may have been filled with water. Because some characteristics of the Athabasca bitumen are similar to conventional Alberta crude oil such as that found at Leduc and Redwater, the origin of Athabasca bitumen has been traced to the Lower Cretaceous Age (125 million years ago). These oil sands are superimposed on deposits of Devonian limestone (350 million years ago).

The McMurray Formation

The McMurray formation consists of a layer of sand, varied in appearance and in sand grain size.

Seams of clay and shale cross the layers of sand in some locations. The major ingredient of the sand is quartz with small amounts of feldspar and mica. Other materials scattered throughout the formation include tourmaline, chloritoid, zircon, staurolite, illite and kaolinite. The sediments that make up the McMurray formation are continental in origin. No one is certain how old the formation is since no fossils have been found that would allow geologists to pinpoint precisely when it originated. In contrast, the Clearwater formation displays evidence of well-developed marine macro- and microfauna.

CLIMATE

The climate of the oil sands region is continental.

This means that the region has a climate of extremes. The mean annual precipitation is 42.8 cm, 24.5 cm of which is received during the growing season. The lowlands range from dry to humid while the uplands are generally moist.

Located in the area of Alberta that receives the least amount of total sunshine per year — 1900 hours, the oil sands region experiences

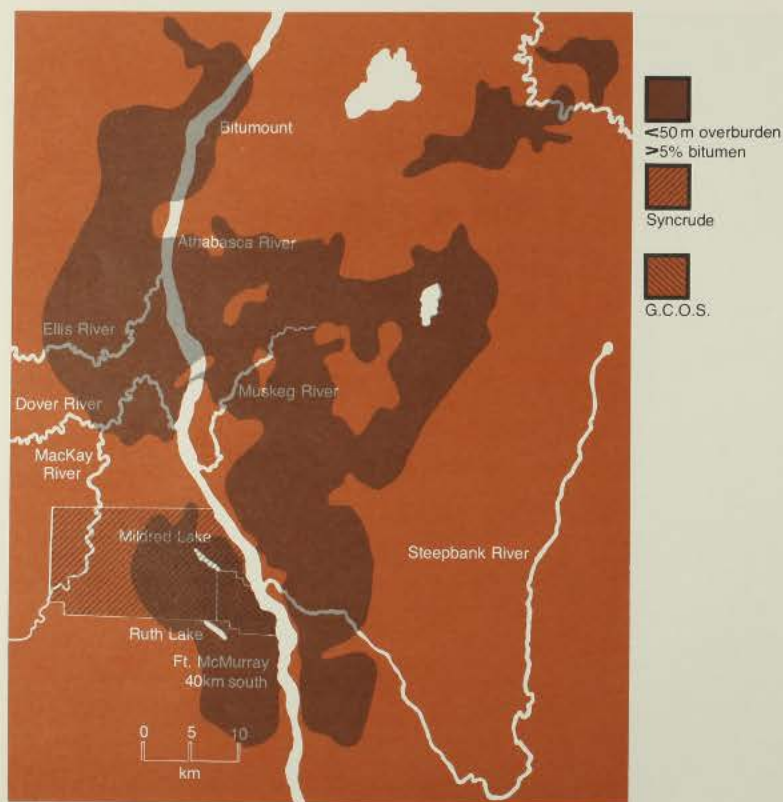


Figure 2 Location of Evaluated Oil Sands Deposits of Northern Alberta

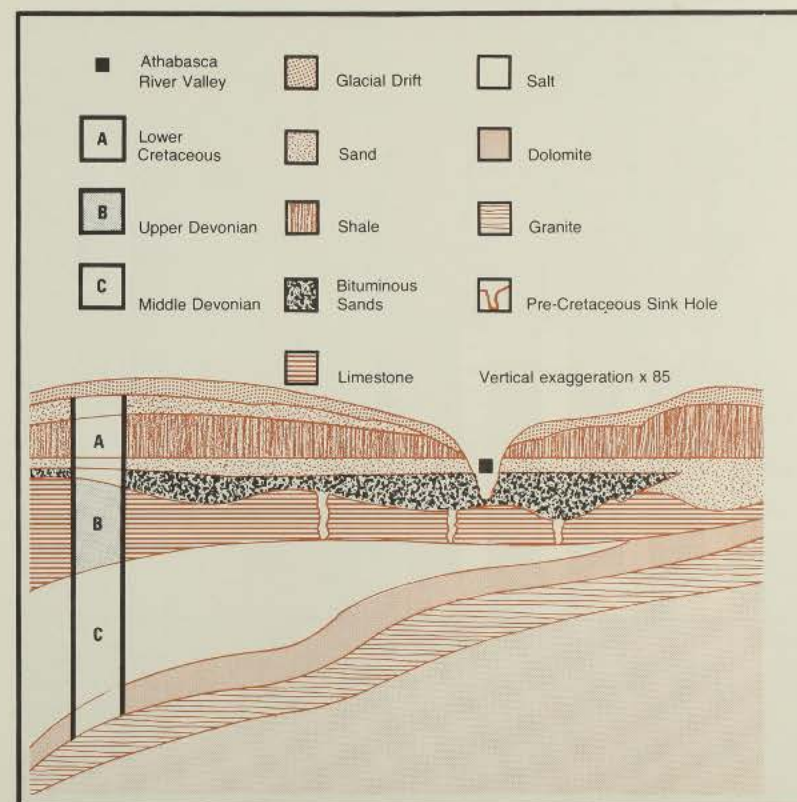


Figure 3 Schematic Geological E-W Cross Section

approximately 65 to 75 per cent cloudiness during the daylight hours.

Winter temperatures have been known to drop as low as -51.6°C , and some years there have been fewer than ten winter days when the temperature has risen above 4.4°C . These sub-zero temperatures, combined with prevailing winds from the north and northwest, create a substantial wind-chill factor. Mean annual snowfall is 163 cm.

Summer temperatures have risen to as high as 36°C , but on the average over the year fewer

than 20 days record temperatures higher than 27°C . The frost-free period averages 69 days with a maximum of 115 frost-free days. The last spring frost has occurred as late as July 13 and the first autumn frost as early as July 18. Because of the nature of the topography these conditions vary considerably throughout the region.

Fort McMurray, at an elevation of 240 m, has a mean annual temperature of -5°C and precipitation of 43.5 cm.

VEGETATION

Since the oil sands area lies within the boreal

forest region, its vegetation consists of deciduous and evergreen trees. Much of the area is covered by aspen poplar. Open areas in the muskeg are dotted with clumps of stunted black spruce. Where the inorganic grey wooded soil is predominant and drainage is moderately good, jack pine and white spruce grow along with Labrador tea and tamarack.

FAUNA

Large mammals found in the oil sands are black bear, wolf, Canada lynx, white-tailed deer, mule deer, moose and caribou. Although the oil

sands are located on the Mississippi and Central flyway for waterfowl, they are not considered important resting or nesting grounds. Walleye, northern pike, goldeye, lake trout and Arctic grayling are the common fish found in the lakes and rivers of the lower Athabasca drainage system.

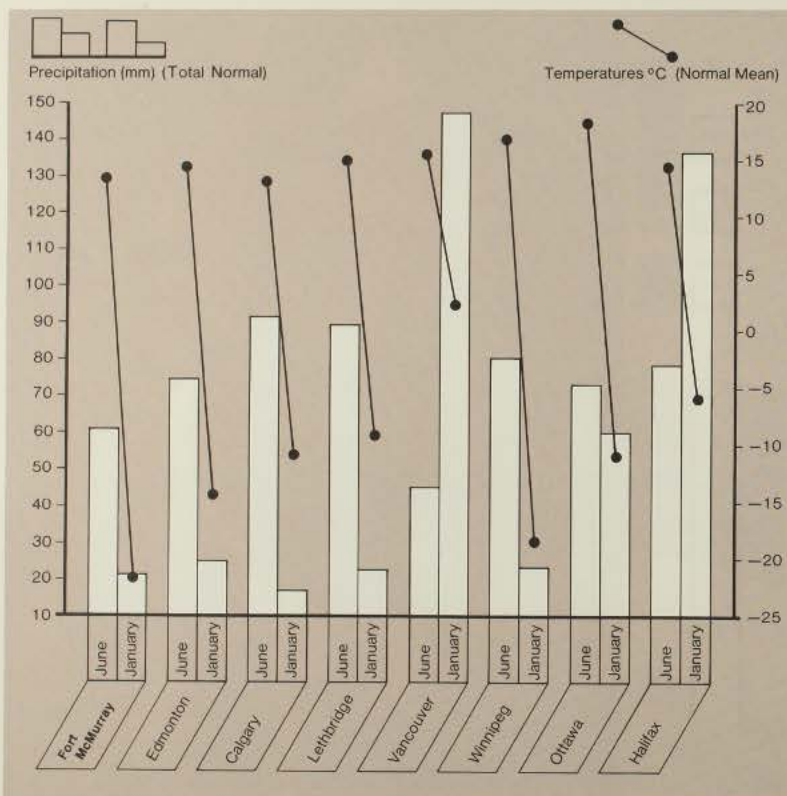
SOIL

The soil of the oil sands is the grey wooded-podzol type.

About 60 per cent of the area is covered by organic material referred to as muskeg or sphagnum moss bog. Organic soils are defined as those that have over 0.3 m of peat at the surface, which enhances their water holding capacity. They are acid to moderately acid in reaction. Between 40 to 75 cm below the surface, the area has discontinuous permafrost particularly in the northern parts although permafrost is rare in the vicinity of Fort McMurray. The typical soil profile has a few centimetres of leaf litter, beneath which there is a grey zone where the soil is leached of any nutrients. Classified primarily as pasture and wood land, the combination of poor soil and lack of drainage makes it of little value for agricultural purposes.

STUDY QUESTIONS

1. What advantages would living in northern Alberta have over living elsewhere in the province? Disadvantages?
2. Considering the natural resources of the Athabasca area, what industries should be encouraged?
3. With the development of the oil sands, what secondary and tertiary industries are likely to develop?



Climograph — This chart shows the average monthly temperatures and precipitation (rain and snow) for four cities in Alberta and four other Canadian cities for the months of January and June.

Pond began his life in a poor family and died in a state of poverty and obscurity. Born at Milford, Connecticut on January 18, 1740, he grew up in New England with little formal education, but he did learn the trade of a shoemaker, the occupation of his father. Despite persistent poverty and illiteracy, his life was filled with high adventure.

During the ensuing years, he participated in such campaigns as Ticonderoga and Niagara and was present at the siege and capture of Montreal. Pond could speak Indian dialects and French; the latter he probably learned from French prisoners of war. He was adept at commanding men, and by the time he was 20 had received a commission in the U.S. Army. In 1760, after he left the army, he went to the West Indies.

A restless spirit at heart, Pond again set out in the spring of 1778. This time he crossed the Cumberland House district to the Churchill River. From there he went to Lake Ile-a-la-Crosse, then to Methye Lake. He travelled inland and discovered the Clearwater River, the first westward flowing river he had encountered. After

He built the first fort in the Mackenzie area and also the first permanent house forty miles below Lake Athabasca. Here he spent the winter of 1778-79. Although Pond did not see Lake Athabasca this time, he found water flowing north, a discovery which encouraged Pond's and Mackenzie's subsequent explorations.

A sepia-toned photograph of a group of men in a small boat on a river, likely the Amazon. The boat is crowded with about six men, some using long poles to navigate. The background shows a dense, hilly landscape.

Upon his return to Athabasca in the spring of 1786, Pond proceeded to organize the Athabasca district for the North West Company. He soon found himself in competition with rival traders John Ross and Laurent Leroux who had preceded him to Athabasca. In 1787 the competition became so severe that it culminated in the death of John Ross who was shot in a fight with Pond's men. The tension that developed among a number of small groups of traders was resolved when many of them amalgamated with the North West Company.

In 1788 Alexander Mackenzie was appointed to replace Pond, who returned to Montreal where he remained until 1790. That year he sold his share in the North West Company for 800 pounds and returned to Milford, Connecticut. He was then 50 years of age. In 1792 he was appointed by the American Secretary of War, Henry Fox, to serve as a special agent to the Indians. In 1807 he died in a state of poverty, at a time when Sir Alexander Mackenzie was reaping the benefits of their combined efforts.

Peter Pond's contribution to the oil sands area of the Athabasca has received little recognition. Among his achievements is the establishment of pioneer posts in the wilderness which formed a base for subsequent explorations.

In recent years there has been some uncertainty as to the exact location of Pond's first fort, probably because of the confusing array of names attached to the rivers of this area. In the early descriptions of the area the Athabasca River is also referred to as Riviere-a-la-Biche and Elk River. Likewise, the Clearwater River has been variously called the Little Athabasca, Methye Portage River and the Pelican River.

Mackenzie determined the location of Pond's post at a distance of about 64 km from Lake Athabasca. It represented a landmark along the Athabasca River for many future adventurers. David Thompson passed "Pond's house" on May 17th, 1804, and made observations which located it at Lat. 58° 25' N., Long. 111° 23' W. It opened the gateway for the North West Company monopoly of the fur trade on the Mackenzie River basin and contributed to the founding of Fort Chipewyan.

For Pond, the long winter evenings were not wasted. He spent much of his time developing maps of his travels but, because he lacked training in astronomy, mathematics and cartography, they lacked precision. What he

lacked in training he made up in intelligence, stamina, ambition and love of adventure. In March of 1785 Pond presented his first known map to the U.S. Congress. In early April, he had an interview with Henry Hamilton, the Lieutenant-Governor of Quebec, to whom he also presented a map. Pond's movements in the northwest have been largely determined from notations he made on three basic maps. Although he indicated oil sands deposits on his maps, it was Alexander Mackenzie who penned the first description of the Athabasca oil sands.

The problem of securing an adequate supply of food absorbed much of the time and energy of early explorers. There was always great haste to locate, set up camp, and lay in a supply before freeze up. The Athabasca Indians introduced Pond to pemmican, a welcome addition to the usual fare of the voyageurs that consisted chiefly of salt pork, corn-meal and dried peas. Recognizing the value of pemmican as a staple food, Pond immediately set to work to organize a supply for his district.

Peter Pond's efforts were never fully appreciated by his contemporaries in the fur trade business. When he entered the fur trade, the American Colonies were still part of Great Britain, and he was often regarded as a "colonial". After the Declaration of Independence, Pond was still looked upon as an outsider. His impulsive, proud and aggressive nature did not endear him to his associates. He does deserve credit, however, for being the first explorer into the area of the Athabasca Oil Sands. Something of the spirit and excitement of the man is reflected in the following quotation from his journal:

"I Continued in trade for Six years in Different Parts of the Cuntrey But Beaing Exposed to all Sorts of Cumpaney it Hapend that a parson who was in trade himSelf to Abuse me in a Shamefull manner Knowing that if I Resontd he could Shake me in Peaceels at same tim Supposeing that I Dair not Sea him at the Pints or at Leas I would not But the Abuse was two Grate we met the Next Morning Fairley and Discharged pistels in which the Pore fellow was unfortennt I then Came Doan the Cuntrey & Declard the fact But there was none to Prosacute me I then made a ture to ye West indaes . . ."

STUDY QUESTIONS

1. Do you think Peter Pond could be considered the first American to stake a claim in Canada? Why?
2. In what ways did Peter Pond contribute to the work of later explorers who came into the area?
3. What was probably the greatest obstacle that Peter Pond had to overcome in his attempts to develop trading posts in the area?

THINGS TO DO

1. Rewrite the quotation from Peter Pond's journal, given at the end of this section, using current punctuation and modern words.
2. Draw a map of one of Peter Pond's journeys and on it locate the places where he established trading posts.
3. Write a character sketch of Peter Pond to show what kind of a person you think he was.

(Provincial Archives of Alberta)



Alexander Mackenzie

ALEXANDER MACKENZIE (1764-1820)

Alexander Mackenzie arrived at Pond's post on the Athabasca River in 1787. He was appointed to replace Pond as manager of the troublesome Athabasca post. Mackenzie, like Pond, was given a share in the North West Company. Prior to his arrival, amalgamation of the small sparring groups of traders and the North West Company had taken place at Grand Portage.

When he arrived in 1787 to take charge of the rugged Athabasca region, Mackenzie landed 24 miles from the junction of the Clearwater and Athabasca rivers. The spot is near the current Syncrude lease at Mildred Lake, nine kilometres downstream from Tar Island, which is now the location of the "tailings pond" of the Great Canadian Oil Sands plant. He described what he saw:

"At about twenty-four miles from the Fork, are some bituminous fountains, into which a pole of twenty feet long may be inserted without the least resistance. The bitumen is in a fluid state, and when mixed with gum, or the resinous substance collected from the spruce fir, serves to gum the canoes. In its heated state it emits a smell like that of sea coal. The banks of the river, which are there very elevated, discover veins of the same bituminous quality."²

This was the first description of the oil sands. Mackenzie was enthusiastic about Peter Pond's post and the potential of the surrounding area for growing food. He found that:

"Mr. Pond was settled on the banks of the Elk River, where he remained for three years, and had formed as fine a kitchen garden as I ever saw in Canada. In the summer of 1788, a small spot was cleared at the Old Establishment,

which is situated on a bank thirty feet above the level of the river, and was sown with turnips, carrots and parsnips. The first grew to large size, and the others thrived very well. An experiment was also made with potatoes and cabbages, the former of which were successful; but for want of care the latter failed . . ."³

The winter of 1787-88 gave Mackenzie a chance to speculate and plan future explorations. Guided by Pond's knowledge, experience and plans for the future, Mackenzie envisioned the discovery of a route to the Pacific Ocean that would open up the rest of the northwest to the fur trade, and which might allow the far-flung western posts to be more easily supplied by sea via the Pacific Ocean. He dispatched his cousin Roderick Mackenzie downstream to build a new post, Fort Chipewyan, on the north shore of Lake Athabasca. It provided the base from which further explorations were conducted. Mackenzie visited the fort at Christmas, and remained there until the winter express left in February. He addressed a letter on February 14, 1789 to his North West Company partners describing the jubilation over the completion of the new fort and the extensive trade with the Chipewyans, who had previously been forced to travel seven months to trade at a post at Hudson's Bay.

The excitement of the traders when they moved to their new post at Fort Chipewyan is reflected in the following passage:

"At the distance about forty miles from the lake is the Old Establishment . . . as formed by Mr. Pond in the year 1778-9, and which was the only one in this part of the world till the year 1785. In the year 1788, it was transferred to the Lake of the Hills, and formed on a point on its southern side, at about eight miles from the discharge of the river. It was named Fort Chipewyan, and is in latitude 58.38 North, longitude 110.26 West, and much better situated for trade and fishing . . ."⁴

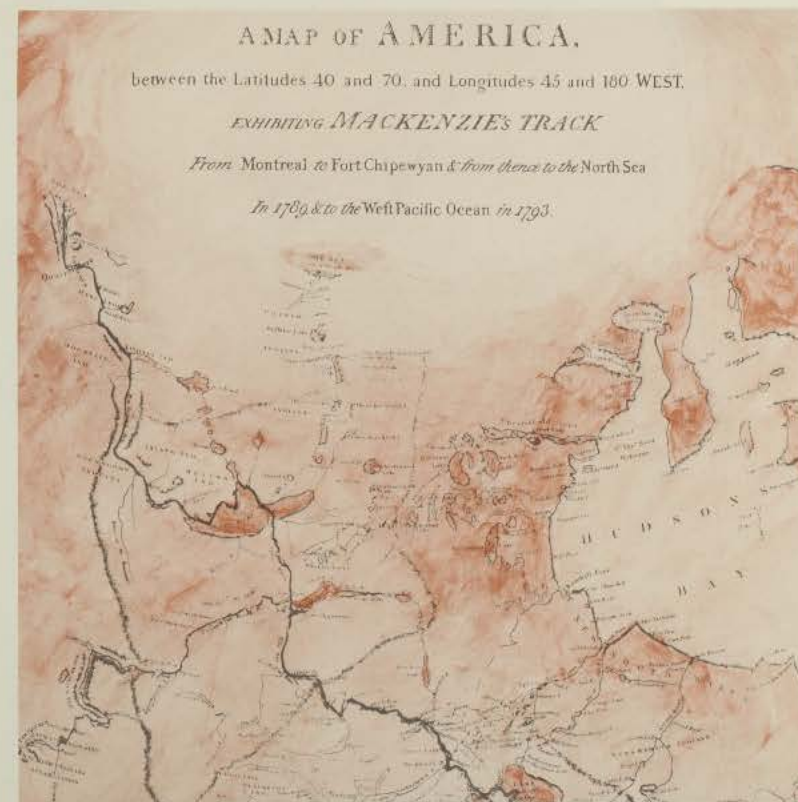
In the spring Pond returned to Montreal and Mackenzie headed north down the mighty river that now bears his name. One can imagine his chagrin when he found it emptied into "The Frozen Ocean." It is understandable why he first called this river "River Disappointment." Mackenzie climaxed his career as an explorer in 1793 when he travelled westward along the Peace River into the heart of the Rockies. Reaching the Fraser River and finding it too

turbulent for his liking, he left it and went overland to reach the Pacific Ocean at the North Bentinck Arm on Bella Coola Inlet on July 22, 1793. He arrived one month ahead of Captain George Vancouver who came to chart the west coast for the British navy.

STUDY QUESTIONS

1. Some historians claim that Alexander Mackenzie's contribution to the exploration of the Athabasca area was more significant than that of Peter Pond. Do you agree with this claim?

Explain.



Alexander Mackenzie's Map 1789-1793

(Provincial Archives of Alberta)

PIONEERS of Athabasca the Oil Sands

Conflict, Confrontation, Amalgamation

The years 1800 to 1821 witnessed an intensified competitive struggle between the Hudson's Bay Company and the North West Company. Men of both companies engaged in acts of burning and pillaging their rival establishments, often taking the chief factor as hostage, only to release him later upon the promise that he would abandon his post and vacate the area.

Initial gains made by the Hudson's Bay Company were meagre and often obtained with considerable effort. As the strength and determination of the Hudson's Bay Company increased, misfortune befell the North West Company. Internal dissension among controlling interests tended to weaken its competitive spirit in the northwest — a condition that worked to the advantage of its competitors.

It wasn't until Governor George Simpson arrived on September 20, 1820 that the fortunes of the Hudson's Bay Company began a significant upswing. Although he was inexperienced in the business of the fur trade, he was competent in business management. He lost little time in revitalizing company holdings which were distributed throughout five districts: Peace River, Athabasca Lake, Great Slave Lake, Mackenzie River and New Caledonia (beyond the mountains in present day British Columbia). Simpson worked

Traders on the Athabasca River



(Provincial Archives of Alberta)

to achieve an efficient operation for the Hudson's Bay Company during 1820-1821, the year he spent in Athabasca.

At the time Simpson was busily engaged in sorting out company business, Sir John Franklin embarked on his first expedition (1819-1822) to the Arctic Ocean in a canoe which was constructed at Fort Chipewyan.

The amalgamation of the two old rivals in the fur trading business in 1821 closed a chapter on the development of the fur trade and exploration of the area bearing the oil sands. Only occasional reference was made to the oil sands: Fidler on one

make the forts self sufficient through renewed interest in agriculture. Potatoes and cabbages became important products of the soil and their cultivation was encouraged wherever possible.

By 1822-23 the first York boats appeared on the Athabasca-Clearwater Rivers waterway to Methye Portage. They provided safe transportation on the large waterways and each carried three times the load of the northwest canoe. Men from Norway House brought goods to the center of Methye Portage and these were exchanged by the men from the Athabasca region for goods going east.

(Provincial Archives of Alberta)



Governor George Simpson

occasion had noted the presence of the oil sands and Governor Simpson, passing the site of present-day Fort McMurray on Sunday, September 17, 1820 observed the outcroppings of salt and tar along the river bank.

Following amalgamation the Hudson's Bay Company moved to eliminate many of the surplus trading posts it had inherited. Many had sprung up in the days of fierce competition between the two companies.

In Athabasca, which had previously been dominated by the Nor'Westers, the Hudson's Bay post of Fort Wedderburne gave way to Fort Chipewyan. Harrison's House at Fond du Lac and Berens' House on the Athabasca River were closed. Fort Chipewyan became the center of supply for the whole of Athabasca and the Mackenzie River basin. Efforts were made to

(Provincial Archives of Alberta)



Sir John Franklin

The years 1821-1840 witnessed the stabilization of the fur trade economy through the introduction of larger boats, careful planning of the brigades and steady improvement in the routes. Arctic and Pacific expeditions through the area continued to complete the work initiated by Pond, Mackenzie, Franklin and other explorers and surveyors.

As the eastern colonies and British North America moved toward Confederation, the Hudson's Bay Company consolidated its holdings between the two western settlements of the Red River Valley and the Pacific coast. Eventually in July of 1870 the Hudson's Bay Company surrendered its claim to Rupert's Land to the newly formed Dominion government. In the process the Province of Manitoba was created and one year later British Columbia joined Confederation on

condition that a transcontinental railway would link it to the rest of Canada.

STUDY QUESTIONS

1. Much energy and duplication of effort occurred as a result of competition among the fur trading companies. Was this any different from the competition that exists today among large companies vying with each other to develop our natural resources?

2. What was the major motive directing the activities of the fur trading companies? What other motives might they have had?



Portaging The York Boat.

(Public Archives Canada)

PIONEERS of the Athabasca Oil Sands

The Missionaries

The 1840's witnessed the first missionaries following the fur traders into the west. In February, 1842 Reverend James Evans visited Fort Chipewyan and by 1846 the first Oblates of Mary Immaculate had arrived from France. Between 1846 and 1874 a number of missionaries visited the area for short periods of time. In 1874, the Reverend W. C. Bomjas, known as the "Apostle of the North", was made the first Anglican Bishop of Athabasca over territory that stretched from Fort Chipewyan to Great Slave Lake and the Mackenzie River. These men, like the hordes of explorers and traders before them, passed the site of the present Fort McMurray many times.

Reverend James Evans

(Provincial Archives of Alberta)



PIONEERS of the Athabasca Oil Sands

The Founding of Fort McMurray, 1870

The year 1870 was a year to remember. Fort McMurray was born. At the same time Rupert's Land was transferred to the Dominion of Canada, and the last great Indian battle between the Blackfoot and the Cree was fought near Lethbridge.

Fort McMurray was founded in the spring of 1870 by a Hudson's Bay Company employee, Henry John Moberly (1835-1931). Dispatched by Factor William McMurray, Moberly, then 35, left Fort Chipewyan on May 9, 1870 and headed south to the confluence of the Athabasca and Clearwater Rivers. The Fort Chipewyan Journal reported on that day:

"Got Mr. Moberly (Henry or Harry J) ready and he started in the evening with a boat manned by 8 men who were to assist him in beginning a new Post at the Forks of the Athabasca and Clearwater Rivers — The boat is to proceed on to Portage La Loche (Methye) with the rest of the Bngade and Mr. Moberly will remain and get the necessary buildings up during the Summer."

Tracking on The Athabasca River

(Provincial Archives of Alberta)

Opposite the mouth of the Clearwater River Moberly landed in a foot of snow. Much to his surprise, upon clearing the snow, he discovered traces of old buildings where a previous post had once existed. The original fort, erected in 1790 by the Nor'Westers, was known as the Fort of the Forks.

By the end of the summer of 1870, a carpenter shop, storehouse, men's house and a temporary house for Moberly were completed. But disaster struck in the spring of 1871 when a keg of gunpowder exploded, burning most of the buildings. This meant the summer of 1872 had to be spent in reconstruction. For the young fur trader, the choice of a site for the company's new post must have seemed less than ideal since on one occasion he observed the surrounding muskeg was "everlasting and eternal". Moberly was to discover, however, that the area contained more than muskeg. He reported finding a salt bed, almost at the surface of the ground, some 24 kilometres southeast of the fort. Although he may not have recognized the significance of the find, salt was to spark one of Fort McMurray's periodic industrial booms several decades later when salt plants began operating in the area.

Moberly named his fort after his friend William McMurray, the Chief Factor of the Hudson's Bay Company for the northern district, who had been responsible for dispatching him to complete the task. Reflecting upon the importance of the fort, William McMurray wrote:

*"Forks or Fort McMurray ... This Post situated at the confluence of the Athabasca and Clearwater Rivers was established summer 1870. Mr. Moberly, the person at present in charge is a good practicable man and appears to take an interest in his work. The complement of men for this place need not be large. If an overland route from Lac La Biche to some point on the Athabasca River below the Falls and Rapids, is practicable, its terminus must either be at the Post, or a mile above it. The site is a central one, and it is on the direct line of communication either to Lac La Biche or Portage La Loche."*⁵

Success was immediate. Two small bands of Chipewyans and Crees began trading at the new post, bringing in 40-45 lb. packs (90 kilograms) of quality furs during its first winter of operation.

The first road to Fort McMurray was begun from Lac La Biche by the Roman Catholic missionaries under the direction of Bishop Faroud.

The road was intended to provide an alternative to the Athabasca River route with its hazardous rapids. By 1871, 160 kilometres of cart-road had been completed at a cost of \$1,100 but the expense was considered too great for the mission resources and the project was abandoned.

By the time the first steam driven sternwheeler, the Grahame, built at Fort Chipewyan, began the Athabasca River run in 1883, Fort McMurray was well established.

*"... the Grahame was the pride of the North. And certainly in the high water of June the trips were ideal. Navigation was a small problem. The pilot just pointed her up or down the river, dodging the islands, and all went well. He had nothing to do but to watch the fascinating forested hillsides in the freshness of their early summer garb. Here and there the greyish cliffs of oil sand showed off their wealth of black petroleum occasionally edged as at Fort McMurray with a base of white devonian limestone. The trip along the river presented a kaleidoscope of colour, with the broad stream, the narrow band of white limestone and the darker cliffs of oil sand, softened by trees growing over them, and farther back the gently rising hills. There was little for the passengers to do but sit and smoke and relax."*⁷

On her first trip to Fort McMurray the Grahame made the upstream journey in thirty hours, returning downstream in fifteen. Northern transportation had made a tremendous stride forward. The old voyageurs, witnessing the events, were most pleased by the gain made in the upstream travel.

"From Fort Chipewyan to Fort McMurray in thirty hours, and no tracking! Gone were the man-killing days when they had pulled scows and York boats and sturgeon-heads mile after mile up the river, weary day after weary day. From daylight to dark they had pulled until each time they slipped on a slimy rock and fell they felt they could never rise again. Each time they sank in the mud and sand up to their knees, they felt like staying there — but they had to go on. On and on, forever the pulling seemed to last. An hour they dragged at the tracking line, then five minutes was taken for a rest and a smoke. Then on again. At the end of three hours, they had another meal; then on they went again."

*Sometimes they made ten miles, rarely twenty, and sometimes, pulling up any rapids, less than five in a day. It was the hardest kind of labour. And now on this section of the Athabasca, all that was but a painful memory."*⁸

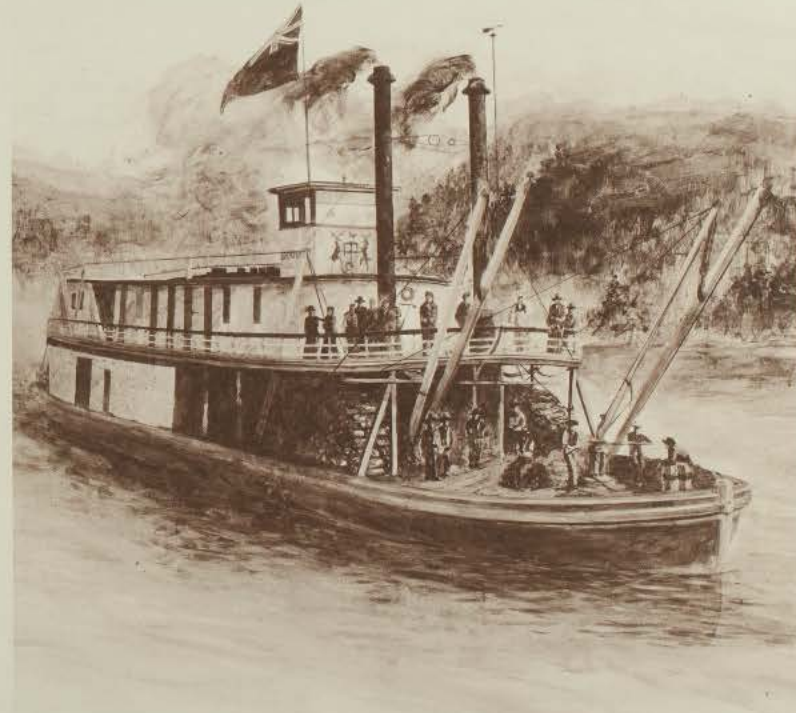
The Grahame was the first of many steam-driven craft to ply the Athabasca, making Fort McMurray an important centre for the river steamboat business.

Although early inhabitants of the region learned the value of the oil sands as a source of material to repair their boats (Fort McMurray residents regularly obtained tar for this purpose from a spring 16 km up the Clearwater), there was little attention paid to the economic importance of the deposit until the late 1800s. By this time, the extent of the deposit had begun to be realized. During his years at Fort McMurray

(Provincial Archives of Alberta)



Henry John Moberly



The Athabasca River

(Alberta Research Council)



Robert Bell

(1870-1878), Moberly had discovered that the beds of oil sand extended up the Athabasca to near the mouth of the Lac La Biche River.

Then, in 1882, Robert Bell of the Geological Survey of Canada, was sent to survey the Athabasca River and study the oil sands. His report hinted that the oil sands were likely to attract much interest.

Describing them as being "of great scientific interest and economic importance", he suggested that one possible method of extracting oil would be to "use the heat yielded by burning some of the impregnated sands to release the oil in the remainder." (Today, essentially the same concept is being explored by scientists seeking an economical in-situ recovery method.)

Bell had already seen evidence of the practical use residents in the area had made of the resource. He found spots on the east shore of the Athabasca commencing about Tar Island, where missionaries and traders had obtained tar. They had boiled it down and used it to repair their boats and, in a few cases, had tried it on their roofs, apparently with little success. Bell's report was the first of many subsequent reports destined to increase interest in developing the oil sands. Fort McMurray, the old fur trading post, had the prospect of becoming the centre of a future oil industry.

FOOTNOTES

- 1 D. J. Comfort, *Meeting Place of Many Waters, Part I: The Fur Trade Era*, (Fort McMurray: Comfort Enterprises, 1973), p. 14.
- 2 *Ibid.*, p. 23.
- 3 *Ibid.*, p. 13.
- 4 *Ibid.*, p. 24.
- 5 J. G. MacGregor, *Paddle Wheels to Bucklewheels On The Athabasca*, (Toronto: McClelland and Stewart Limited, 1974), p. 77.
- 6 D. J. Comfort, "William McMurray, The Name Behind the Fort", *Alberta History*, Vol. 23, No. 4 (Historical Society of Alberta, Autumn 1975).
- 7 MacGregor, *Paddle Wheels to Bucklewheels*, p. 89.
- 8 *Ibid.*, p. 89.

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